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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/530,694	05/04/2000	Noriyuki Nakaoka	Q58984	3536

7590 06/05/2002
Sughrue Mion Zinn Macpeak & Seas
2100 Pennsylvania Avenue NW
Washington, DC 20037-3202

EXAMINER	
BERNATZ, KEVIN M	
ART UNIT	PAPER NUMBER
1773	9

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Please find below and/or attached an Office communication concerning this application or proceeding.

MF-9

Office Action Summary	Applicant(s) 09/530,694	Applicant(s) NAKAOKA ET AL.	
	Examiner Kevin M Bernatz	Art Unit 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 8 and 9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Response to Amendment

1. Amendments to the specification and claims 1 - 10, filed on March 18, 2002, have been entered in the above-identified application.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Specification

3. The substitute specification filed April 17, 2002 has been entered.

Claim Objections

4. Claims 8 and 9 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 5 and 6 already requires layer "A" to comprise iron and the examiner has deemed "comprise substantially iron" is still open to other elements besides iron and merely requires iron as the main component, which is also already required in claims 5 and 6. If applicants' intended to claim a layer only containing iron, the examiner recommends amending claims 8 and 9 to read "consists of iron" or "consists essentially of iron".

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claims 1, 6 and 9 are rejected under 35 U.S.C. 102(a) as being anticipated by Nakanishi et al. (JP 09 – 312361 A). See provided JPO Abstract Translation of Tokkyo Kokai 09-312361 A, as well as U.S. Patent No. 6,045,927, which is the English Language equivalent of Tokkyo Kokai 09-312361 A.

Regarding claims 1, 6 and 9, the claimed invention reads on Nakanishi et al. as follows: Nakanishi et al. disclose a method of producing a magnetic material comprising the steps of preparing a multilayer body in which layers 'A' each containing as the main component thereof Fe ('927, col. 7, lines 10 – 13) and layers 'B' each containing a non-magnetic Cu group metal as the main component thereof are stacked on each other (col. 2, line 64 bridging col. 3, line 7); heating the multilayer body so that each of the layers 'B' is partially divided by a dividing heat treatment (col. 3, lines 10 – 27); and applying a cold plastic working to the multilayer body (col. 6, lines 45 - 57).

The limitation(s) "capable of having either a magnetized state or a demagnetized state" is (an) intended use/functional limitation(s) since the magnetized state depends

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on how the aforementioned material is used (i.e. either with or without a bias magnetic field, etc). "[I]n apparatus, article, and composition claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. ***If the prior art structure is capable of performing the intended use, then it meets the claim.*** In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art." *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967); *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963). See MPEP § 2111.02. In the instant case, since Nakanishi et al. disclose a layer 'A' mainly containing Fe and a layer 'B' mainly containing copper, the examiner deems that the disclosed structure would necessarily be capable of performing the claimed limitation.

Furthermore, it has been held that where claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established and the burden of proof is shifted to applicant to show that prior art products do not necessarily on inherently possess characteristics of claimed products where the rejection is based on inherency under 35 USC 102 or on *prima facie* obviousness under 35 USC 103, jointly or alternatively. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the *prime facie* case can be

rebutted by **evidence** showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 562 F.2d at 1255, 195 USPQ at 433. In the instant case, the prior art products are believed to be the same since they are produced by layers 'A' and 'B' meeting applicants' claimed limitations, followed by a heat treatment step, followed by cold plastic working. Since the starting materials and process used to treat the materials are substantially identical to applicants, the examiner believes that the prior art products are the same and would necessarily possess the following properties.

Therefore, in addition to the above disclosed limitations, the presently claimed properties of the magnetized state (claim 1), the "shape of a sheet partially divided" (claim 6) and "Fe having magnetization" (claims 1 and 6) would have necessarily been present because the prior art structure is substantially identical and the prior art product is produced by a substantially identical process, and there is no evidence of record showing that the disclosed prior art products do not necessarily possess the characteristics of the claimed product. The examiner notes that Fe, Co and Ni are well known magnetic materials (see Whetstone '379, col. 6, lines 60 – 68 and col. 14, lines 39 – 41, for example).

7. Claims 1, 5, 6, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Whetstone (U.S. Patent No. 4,025,379).

Regarding claims 1, 6 and 9, the claimed invention reads on Whetstone as follows: Whetstone discloses a method of producing a magnetic material comprising the

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steps of preparing a multilayer body in which layers 'A' each containing as the main component Fe having magnetism (col. 7, lines 33 – 36 and col. 14, lines 40 – 41) and layers 'B' each containing a non-magnetic Cu group metal as the main component thereof are stacked on each other (col. 8, lines 36 – 42 and Figure 3); heating the multilayer body so that each of the layers 'B' is partially divided by a dividing heat treatment (col. 7, lines 42 - 43); and applying a cold plastic working to the multilayer body (col. 7, lines 52 - 53).

The limitation(s) "capable of having either a magnetized state or a demagnetized state" is (an) intended use/functional limitation(s) and is interpreted as above.

In addition to the above disclosed limitations, the presently claimed properties of the magnetized state (claim 1) and the "shape of a sheet partially divided" (claim 6) would have necessarily been present because the prior art structure is substantially identical and the prior art product is produced by a substantially identical process, and there is no evidence of record showing that the disclosed prior art products do not necessarily possess the characteristics of the claimed product. In the instant case, while Whetstone has additional layers in their disclosed structure, applicants' claimed invention is open to the presence of additional layers and Whetstone still teaches layers 'A' and 'B' meeting applicants' claimed limitations, followed by heat treatment and cold plastic working. Since the layers are the same and the process steps are the same, the examiner believes the products produced are the same and therefor necessarily possess the claimed limitations.

Regarding claims 5 and 8, Whetstone disclose thickness values meeting applicants' claimed range (col. 7, lines 52 – 53).

8. Claims 1, 5, 6, 8 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Masahiro et al. (U.S. Patent No. 6,372,062 B1).

Regarding claims 1, 6 and 9, the claimed invention reads on Masahiro et al. as follows: Masahiro et al. disclose a method of producing a magnetic material comprising the steps of preparing a multilayer body in which layers 'A' each containing as the main component thereof Fe having magnetism and layers 'B' each containing a non-magnetic Cu group metal as the main component thereof are stacked on each other (col. 5, lines 8 – 12); heating the multilayer body so that each of the layers 'B' is partially divided by a dividing heat treatment (col. 5, lines 15 – 16 and lines 38 – 40); and applying a cold plastic working to the multilayer body (col. 5, lines 37 – 38) (see also claims).

The limitation(s) "capable of having either a magnetized state or a demagnetized state" is (an) intended use/functional limitation(s) and is interpreted as cited above.

In addition to the above disclosed limitations, the presently claimed properties of the magnetized state (claim 1) and the "shape of a sheet partially divided" (claim 6) would have necessarily been present because the prior art structure is substantially identical and the prior art product is produced by a substantially identical process, and there is no evidence of record showing that the disclosed prior art products do not necessarily possess the characteristics of the claimed product. In the instant case, Masahiro et al. teach layers 'A' and 'B' meeting applicants' claimed limitations, followed

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by heat treatment and cold plastic working. Since the layers are the same and the process steps are the same, the examiner believes the products produced are the same and therefor necessarily possess the claimed limitations.

Regarding claims 5 and 8, Masahiro et al. disclose a final thickness meeting applicants' claimed range (col. 5, lines 37 - 38).

Claim Rejections - 35 USC § 103

9. Claims 2 – 4, 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masahiro et al. as applied above, and further in view of Manning ('460).

Regarding claim 2, Masahiro et al. is relied upon as in the above. Masahiro et al. further disclose a temperature meeting applicants' claimed limitations (col. 5, lines 15 – 16).

Masahiro et al. fail to disclose a holding time meeting applicants' claimed limitations.

However, Manning et al. teach a holding period meeting applicants' claimed limitation in order to allow the alloy to fully homogenize (col. 2, line 64 bridging col. 3, line 15 and col. 4, lines 36 – 48). The exact holding time is deemed a cause-effective variable based on production time (shorter = good) and degree of homogenization prior to hot rolling (longer = good).

It would therefor have been obvious to one having ordinary skill in the art to have determined the optimum value of a cause effective variable such as the holding time

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through routine experimentation in the absence of a showing of criticality in the claimed holding time, especially given the Manning et al. teachings. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Regarding claims 3 and 4, Manning et al. disclose a second heat treatment after cold working a magnetic material meeting applicants' claimed temperature and period limitations in order to relax the structure and increase the magnetic properties (col. 5, lines 15 – 42). It would therefore have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device of Masahiro et al. to include a second heat treating step meeting applicants' claimed limitations as taught by Manning et al. in order to relax the structure and increase the magnetic properties..

Regarding claims 7 and 10, Manning et al. disclose magnetic markers meeting applicants' claimed limitations for use in protecting articles (col. 1, lines 36 – 50). It would therefore have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device of Masahiro et al. to produce a magnetic marker as taught by Manning et al. in order to form magnetic markers possessing good semi-hard magnetic properties for use in protecting articles.

10. Claims 2 – 4, 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whetstone ('379) in view of Manning et al. ('460).

Whetstone is relied upon as in the above.

Regarding claim 2, Whetstone discloses a temperature meeting applicants' claimed limitations (col. 7, lines 42 - 43), but fails to disclose a holding time meeting applicants' claimed limitations.

However, Manning et al. teach a holding period meeting applicants' claimed limitation in order to allow the alloy to fully homogenize (col. 2, line 64 bridging col. 3, line 15 and col. 4, lines 36 - 48). The exact holding time is deemed a cause-effective variable based on production time (shorter = good) and degree of homogenization prior to hot rolling (longer = good).

It would therefore have been obvious to one having ordinary skill in the art to have determined the optimum value of a cause effective variable such as the holding time through routine experimentation in the absence of a showing of criticality in the claimed holding time, especially given the Manning et al. teachings. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Regarding claims 3 and 4, Manning et al. disclose a second heat treatment after cold working a magnetic material meeting applicants' claimed temperature and period limitations in order to relax the structure and increase the magnetic properties (col. 5, lines 15 - 42). It would therefore have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device of Whetstone to include a second heat treating step meeting applicants' claimed limitations as taught by Manning et al. in order to relax the structure and increase the magnetic properties..

Regarding claims 7 and 10, Manning et al. disclose magnetic markers meeting applicants' claimed limitations for use in protecting articles (col. 1, lines 36 - 50). It

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would therefore have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the device of Whetstone to produce a magnetic marker as taught by Manning et al. in order to form magnetic markers possessing good semi-hard magnetic properties for use in protecting articles.

Response to Arguments

11. The rejection of claims 1 - 7 under 35 U.S.C § 103(a) – Endo et al. in view of various references

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin M Bernatz whose telephone number is (703) 308-1737. The examiner can normally be reached on M-F, 9:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on (703) 308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.



KMB
May 31, 2002



Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700